

Life-Cycle Effects of Childhood Medicaid Expansions over Adulthood

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Special thanks to Ithai Lurie.

Any opinions and conclusions expressed herein are those of the authors and do not represent the views of the U.S. Census Bureau or the U.S. Treasury. The Census Bureau has ensured appropriate access and use of confidential data and has reviewed these results for disclosure avoidance protection (CBDRB-FY25-CES005-010; CBDRB-FY25-CES023-011, and CBDRB-FY26-CES014-001).

Medicaid

75.7 million people

Medicare

69.9 million people

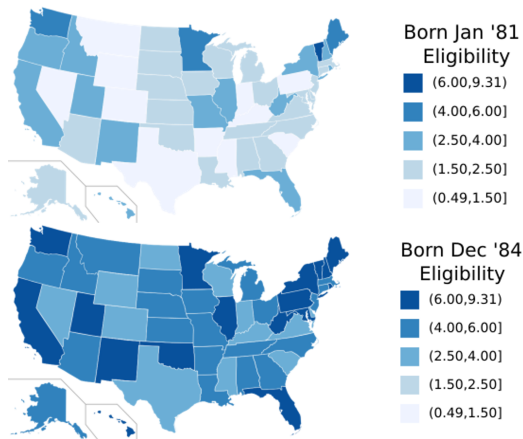
Medicaid

75.7 million people

36 million children
(49% of US children)
are enrolled in
Medicaid



We estimate effects of childhood Medicaid eligibility by comparing cohorts across states and over time.



HEALTH INSURANCE ELIGIBILITY, UTILIZATION OF MEDICAL CARE, AND CHILD HEALTH*

JANET CURRIE AND JONATHAN GRUBER

We study the effect of public insurance for children on their utilization of medical care and health outcomes by exploiting recent expansions of the Medicaid program to low-income children. These expansions doubled the fraction of children eligible for Medicaid between 1984 and 1992. Take-up of these expansions was much less than full, however, even among otherwise uninsured children. Despite this take-up problem, eligibility for Medicaid significantly increased the utilization of medical care, particularly care delivered in physicians' offices. Increased eligibility was also associated with a sizable and significant reduction in child mortality.

© 1996 by the President and Fellows of Harvard College and the Massachusetts Institute of Technology.
The Quarterly Journal of Economics, May 1996.

American Economic Review: Papers & Proceedings 2011, 101:3, 1–22
<http://www.aeaweb.org/articles.php?doi=10.1257/aer.101.3.1>

RICHARD T. ELY LECTURE

Inequality at Birth: Some Causes and Consequences

By JANET CURRIE*

Economists have long been interested in the origins of inequality between individuals and between groups. Richard Ely, the founder of the American Economic Association and the person honored by these lectures, was certainly concerned about the "...share of the total product of industry that is received by each section of the community" (Richard T. Ely, Thomas S. Adams, Max O. Lorenz, Allyn A. Young 1910, p. 542).

The first part of the lecture will review some of the evidence about the determinants of health at birth. I argue that individuals may start with very different endowments at birth because of events that happened to them during a critical period: the nine months that they were *in utero*. In turn, endowments at birth have been shown to be predictive of adult outcomes and of the outcomes of the next generation.



Janet
Currie
Yale University



Jonathan
Gruber
MIT

Long-Term Impacts of Medicaid



Boudreaux, Golberstein,
McAlpine 2016

The Effect of Child Health Insurance Access on Schooling & Evidence from Public Insurance Expansions

Sarah R. Cohodes
Daniel S. Grossman
Simmel A. Kleiner
Michael F. Lovenheim

ABSTRACT

Although a stable literature analyzes the effects of public health insurance programs on short-run health outcomes, little prior work has examined their long-term effects. We examine the effects of public insurance expansion among children in the 1980s and 1990s on their future educational attainment. We find that expanding health insurance coverage for low-income children increases the rate of high school and college completion. These estimates are robust to only using federal Medicaid expansions and nearly are due to expansions that occur when the children are not newborns. Our results indicate that the long-run benefits of public health insurance are substantial.

Cohodes, Grossman,
Kleiner, Lovenheim 2016

Saving Teens & Using a Policy Discontinuity to Estimate the Effects of Medicaid Eligibility

Laura R. Wherry
Bruce D. Meyer

ABSTRACT

We examine the immediate and longer-term mortality effects of public health insurance eligibility during childhood. Our identification exploits expansions in Medicaid eligibility that applied only to children born after September 30, 1983. This feature resulted in a large discontinuity in the cumulative years of eligibility of children at this birth date cutoff. Under the expansion, black children gained twice the years of Medicaid eligibility as white children. We find a later-life decline in the rate of abuse-related mortality for black cohorts born after the cutoff. We find no evidence of a similar mortality

Wherry and Meyer 2016

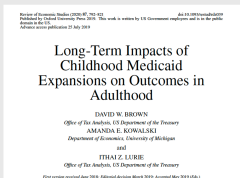
The Long-Term Effects of Early Life Medicaid Coverage &

Sarah Miller
Laura R. Wherry

ABSTRACT

In this study, we evaluate how an expansion of Medicaid coverage for pregnant women and infants affected the adult outcomes of individuals who gained access to coverage in utero and during the first year of life. We find that cohorts whose mothers gained eligibility for prenatal coverage under Medicaid have lower rates of chronic conditions at adult and fewer hospitalizations related to diabetes and obesity. We also find that the expansions increased high school graduation rates. Our results indicate that expanding Medicaid prenatal coverage had long-term benefits for the next generations.

Miller and Wherry 2018



Long-Term Impacts of Childhood Medicaid Expansions on Outcomes in Adulthood

DAVID W. BROWN
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First version received June 2018; Editorial decision March 2019; Accepted May 2019 (Eds.)

Brown, Kowalski, Lurie
2020



The Long-Run Effects of Childhood Insurance Coverage: Medicaid Implementation, Adult Health, and Labor Market Outcomes

By ANDREW GOODMAN-BACON

This paper estimates the long-run effects of childhood Medicaid eligibility on adult health and economic outcomes using the program's original implementation (1966-1970) and its extended coverage of welfare recipients. The design compares cohorts born in different years relative to Medicaid implementation, in states with different preexisting welfare-based eligibility. Early childhood Medicaid eligibility reduces mortality and disability, increases employment, and reduces receipt of disability transfer payments up to 30 years later. Medicaid has saved the government more than its original cost and saved more than 10 million quality-adjusted life years. (JEL H12, H13, I18, I38, J13, J16)

Goodman-Bacon 2021

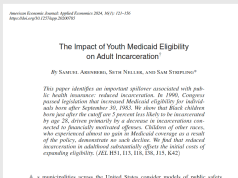


Multigenerational Impacts of Childhood Access to the Safety Net: Early Life Exposure to Medicaid and the Next Generation's Health

By CHLOE N. EAST, SARAH MILLER, MARIANNE PAULL, and LAURA R. WHERRY

We examine multigenerational impacts of positive in utero health interventions using a new research design that exploits sharp increases in prenatal Medicaid eligibility that occurred in some states. Our analyses are based on US Vital Statistics natality files, which enables linkages between individuals' early life Medicaid exposure and the next generation's health at birth. We find evidence that the health benefits associated with treated generations' early life program exposure extend to later offspring. Our results suggest that the returns on early-life health investments may be substantially underestimated. (JEL H12, H13, I18, I38, J13, J16)

East, Miller, Page,
Wherry 2023



The Impact of Youth Medicaid Eligibility on Adult Incarceration

By SAMUEL ARENBERG, SETH NELLER, and SAM STRIPLING

This paper identifies an important spillover associated with public health insurance: reduced incarceration. In 2000, Congress passed legislation that increased Medicaid eligibility for individuals born after September 30, 1983. We show that black children born just after the cutoff are 5 percent less likely to be incarcerated by age 28, driven primarily by a decrease in incarcerations connected to financially motivated offenses. Children of other races, who experienced almost no gain in Medicaid coverage as a result of the policy, demonstrate no such decline. We find that reduced incarceration in adulthood substantially offsets the initial costs of expanding eligibility. (JEL H51, H13, H38, J13, K42)

A municipalities across the United States consider models of public safety

Arenberg, Neller,
Stripling 2024

By age 28...

Review of Economic Studies (2020) 87, 792–821

doi:10.1093/restud/rdz039

Published by Oxford University Press 2019. This work is written by US Government employees and is in the public domain in the US.

Advance access publication 25 July 2019

Long-Term Impacts of Childhood Medicaid Expansions on Outcomes in Adulthood

DAVID W. BROWN

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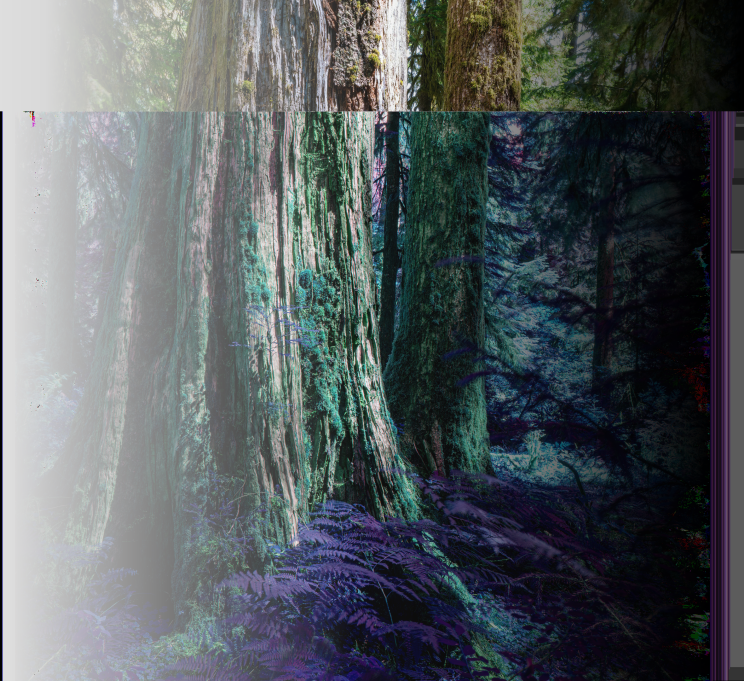
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ITHAI Z. LURIE

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Medicaid eligibles
live longer



Medicaid eligibles
have increased
college enrollment



Medicaid eligibles
have lower fertility



Medicaid eligibles
have higher
lifetime earnings



Medicaid
generates 58 cents
of federal tax
revenue per dollar
spent

A photograph of a building facade, likely the Internal Revenue Service building. The image shows a window with multiple panes and a stone step leading up to the entrance. The text 'INTERNAL REVENUE SERVICE' is visible on the wall below the window.

INTERNAL
REVENUE
SERVICE

The New York Times

Upshot
LIVE HEALTH

How Medicaid for Children Partly Pays for Itself

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Visual

The New York Times

TheUpshot
THE NEW HEALTH CARE

It's Easy for Obamacare Critics to Overlook the Merits of Medicaid Expansion

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Clarke Thompson

The New York Times

ONOMIC SCENE

The Costs of Stinginess in Medicaid

Share full article



Editorial

How much money does Arkansas save by offering stingier Medicaid than Vermont?

Vox

POLICY / SOCIAL PROGRESS

Study: Medicaid expansion boosts incomes and government tax

By Sarah Kliff



ctpost

SALE!

Study: Medicaid-eligible children pay more in taxes as adults

By Amanda Cuda, Associate Editor, The Stamford Advocate

Updated Jan 12, 2015 11:48 p.m.

Children of the 1980s who were eligible for Medicaid benefits in their youth paid more in taxes as adults, a new study from Yale University.

The study also showed these same people were less likely to attend college and less likely to die prematurely than peers who weren't eligible for benefits.

The Daily Tar Heel

Printing news. Raising hell. Since 1883.

NEWS

Medicaid confers long-term benefits

By Charles Talbot

Published Friday, Jan. 16, 2015

Offering Medicaid to children can be a prudent investment. Medicaid recipients are expected to pay back more than 10% of the program through additional income tax revenue later in life.

The National Bureau of Economic Research released a new study on the long-term effects of Medicaid expansion in the 1990s on income, college attendance, mortality rate and tax revenue.

The study comes as a number of states — including North Carolina — are [reconsidering expanding their Medicaid programs](#).

Vol. 135 2020 Issue 3

NATHANIEL HENDREN AND BEN SPRUNG-KEYSER

[illegible]

ECONOMIC REPORT OF THE PRESIDENT

TRANSMITTED TO CONGRESS
JANUARY 2025

Working Paper Series
Congressional Budget Office
Washington, D.C.

Exploring the Effects of Medicaid During Childhood on the Economy and the Budget

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Working Paper 2023-07

November 2023

To enhance the transparency of the work of the Congressional Budget Office and to encourage external review of that work, CBO's working paper series includes papers that provide technical descriptions of official CBO analyses as well as papers that represent independent research by CBO authors. These papers are available at <https://www.cbo.gov/publications/working-papers>.

What do another ten years reveal?

Family formation declines
partially reverse

Mortality gains **persist**

Earnings and tax gains
accelerate



Research design

How we estimate the long-run effects of childhood Medicaid eligibility

We follow the 1981–1984 cohorts through age 38

Birth cohorts 1981–1984

Childhood exposure

Medicaid eligibility from ages 0–18

Adult outcomes

Estimated separately at each age



Data and measurement

Administrative data

Childhood exposure

Medicaid eligibility
from ages 0–18

Eligibility calculator

Family formation

Marriage, fertility

Tax data

Mortality

Date of death

Numident

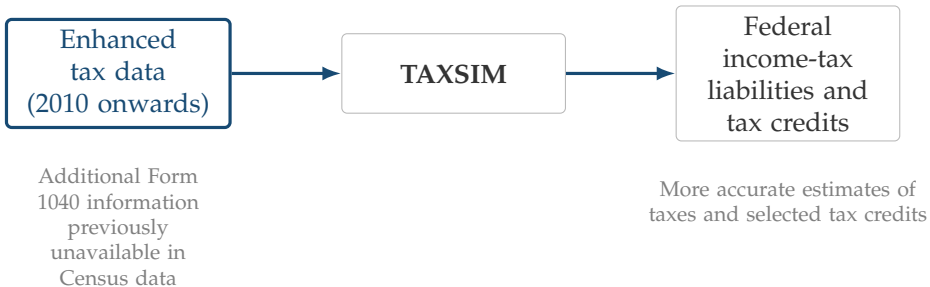
Economic outcomes

W-2 earnings, EIC,
and federal income tax

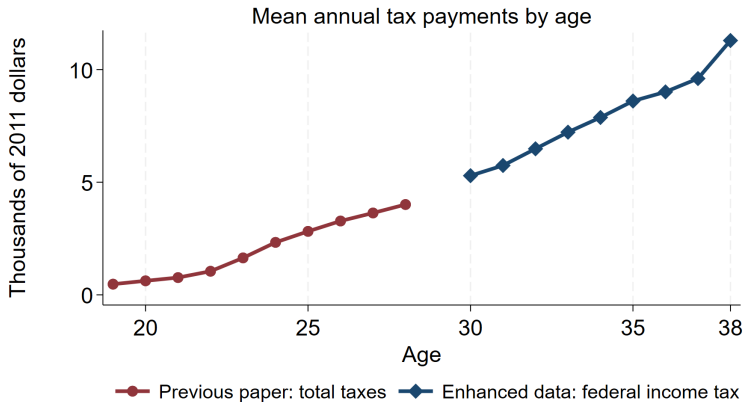
Enhanced tax data, ages
30–38

Data accessed through the U.S. Census Bureau

Enhanced tax data: age 30-38



Taxes in Census data align well with those in Treasury data



Age 29 is unavailable.

MSIS provides the Medicaid cost

Medicaid Statistical Information System

Administrative enrollment and spending records



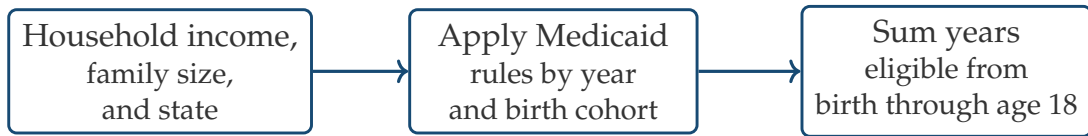
Marginal Medicaid spending per simulated eligible year



Program cost in the fiscal ROI calculation

Medicaid cost (in 2011 dollars) is discounted to birth at 3%

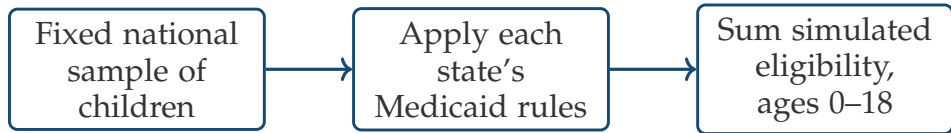
We calculate childhood Medicaid eligibility



Actual eligibility reflects household circumstances and policy rules

► Eligibility construction

Simulated eligibility isolates policy-driven variation

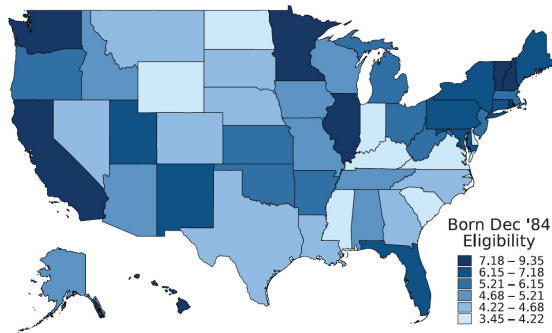
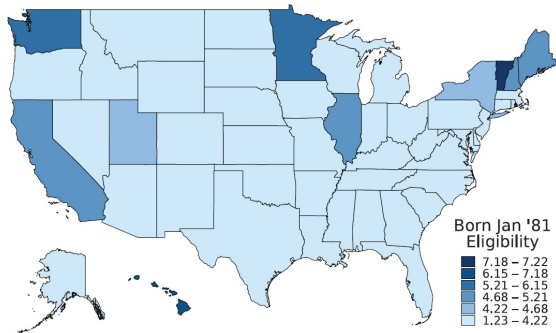


Household characteristics are held fixed

Variation comes from policy changes across states, birth cohorts, and years

Currie and Gruber (1996)

Policy changes generated different eligibility histories



Simulated eligibility differs across states, cohorts, and years

Simulated eligibility increased by 1.85 years on average
between the Jan. 1981 and Dec. 1984 birth cohorts

Estimating equation

$$Y_{i,a} = \beta_a \underbrace{\text{Years of simulated Medicaid eligibility}_{c(i),s(i)}}_{\substack{\text{ages 0–18, based on} \\ \text{birth cohort and birth state}}} + \gamma_{s(i)} + \delta_{c(i)} + \varepsilon_{i,a}$$

A separate regression for each outcome and adult age a

Birth-state and birth year-by-month fixed effects; standard errors clustered by birth state

Simulated eligibility strongly predicts actual eligibility

One additional year of simulated eligibility predicts

0.94 years

of additional Medicaid eligibility

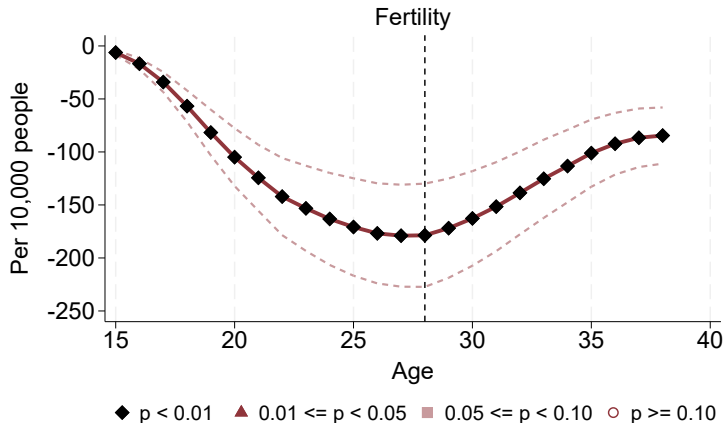
Standard error: 0.07 $F = 172$

We therefore report reduced-form estimates

Results

What ten additional years reveal

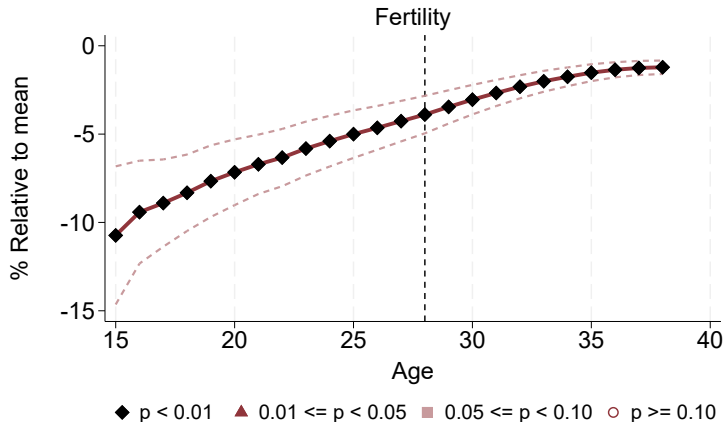
The fertility decrease reverses course after age 28



Age 28: 179 fewer (mean: 4,587)

Age 38: 85 fewer (mean: 6,955)

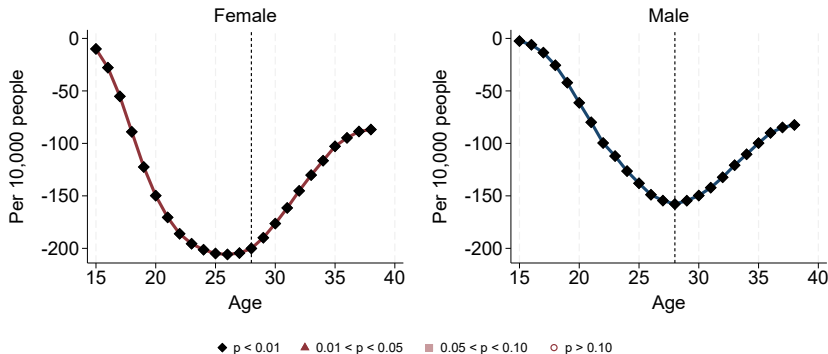
The fertility gap narrows relative to mean fertility



Age 28: 3.9% lower (mean: 4,587)

Age 38: 1.2% lower (mean: 6,955)

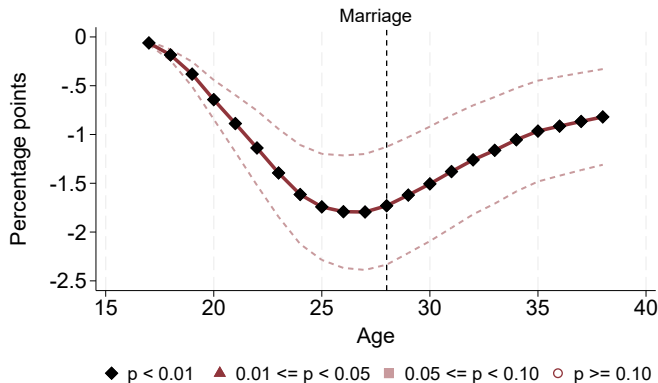
Similar decrease for men and women



Women, age 38: 87 fewer (mean: 7,664; 1.1% lower)

Men, age 38: 82 fewer (mean: 6,265; 1.3% lower)

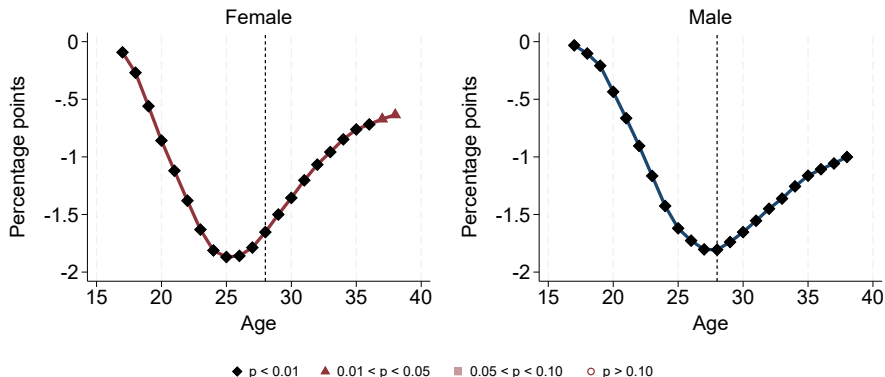
The marriage decrease reverses course after age 28



Age 28: 1.73 pp lower (mean: 42.25 pp; 4.1% lower)

Age 38: 0.82 pp lower (mean: 64.51 pp; 1.3% lower)

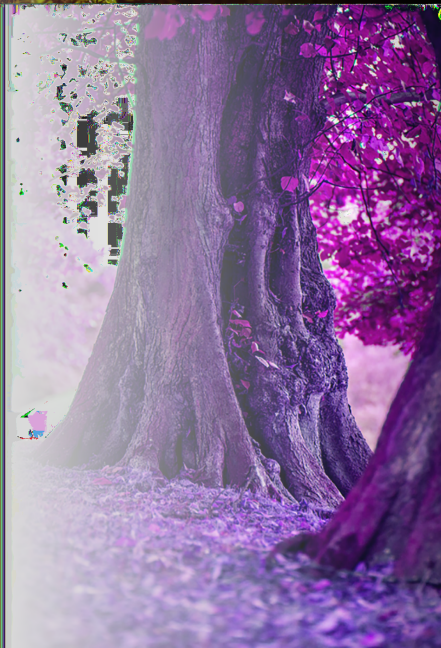
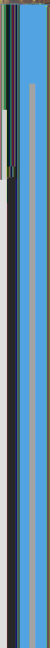
Larger decline in marriage rate among men through age 38



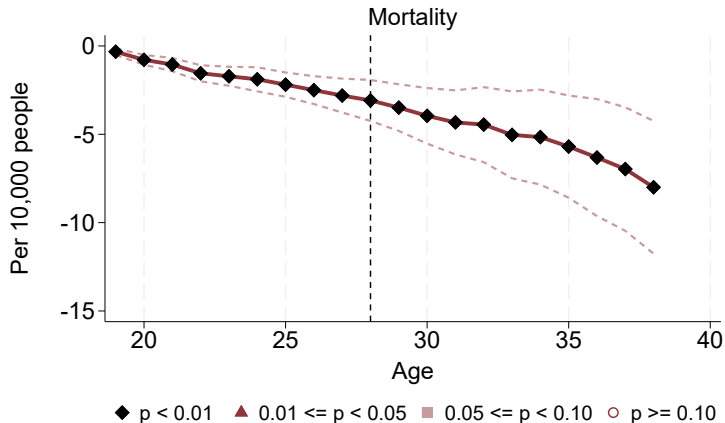
Women, age 38: 0.64 pp lower (mean: 68.0 pp; 0.9% lower)
Men, age 38: 1.00 pp lower (mean: 61.2 pp; 1.6% lower)

Mortality

Mortality



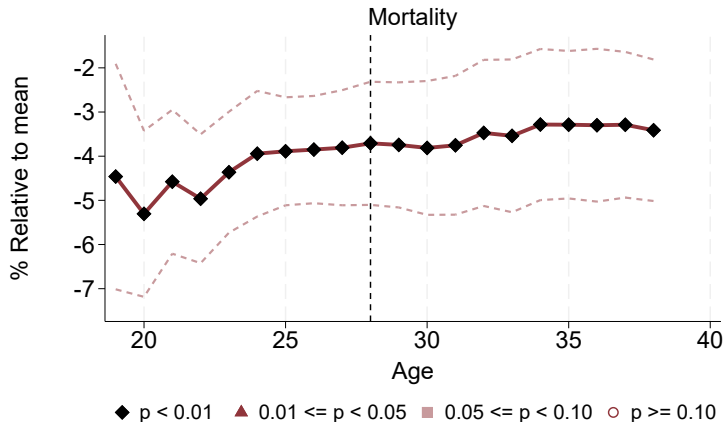
Medicaid eligibility decreases mortality through age 38



Age 28: 3 fewer (mean: 83)

Age 38: 8 fewer (mean: 234)

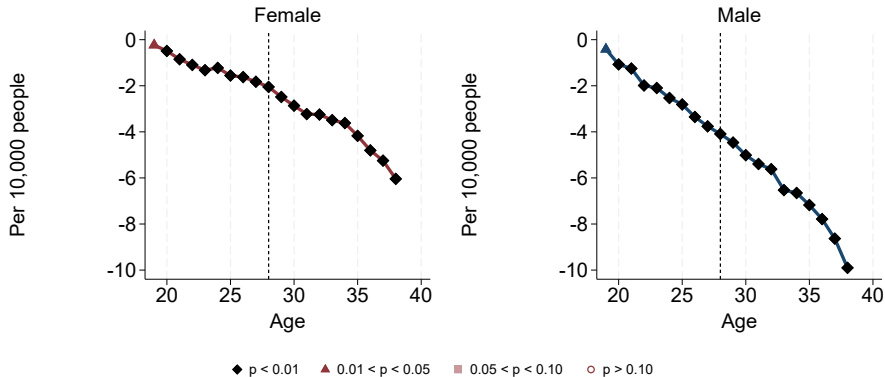
Mortality reductions persist relative to mean mortality



Age 28: 3.7% lower (mean: 83)

Age 38: 3.4% lower (mean: 234)

Greater decline in mortality for men; smaller in relative terms



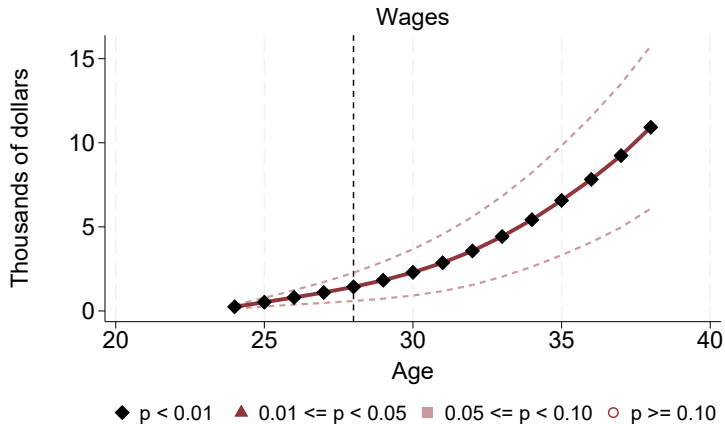
Women, age 38: 6.0 fewer (mean: 147.9; 4.1% lower)

Men, age 38: 9.9 fewer (mean: 318.6; 3.1% lower)

Wages



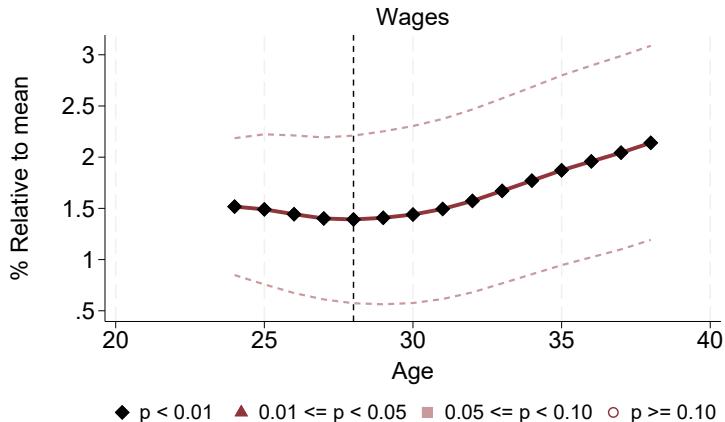
Cumulative wage gains accelerate through the thirties



Age 28: \$1,511 (mean: \$104,700)

Age 38: \$12,200 (mean: \$525,600)

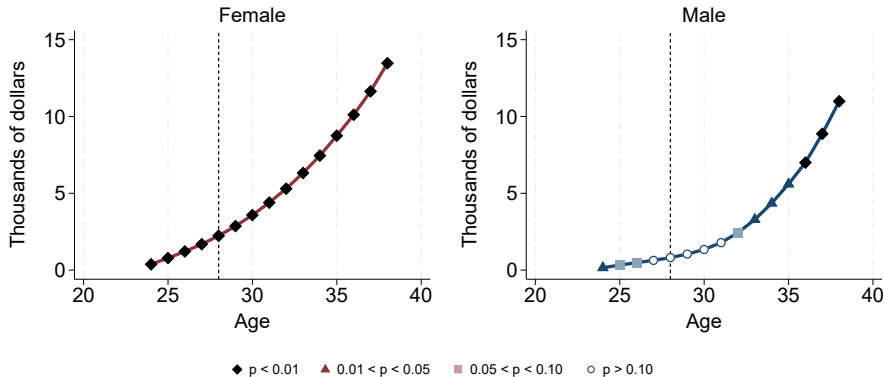
Wages also grow relative to the mean



Age 28: 1.4% (mean: \$104,700)

Age 38: 2.3% (mean: \$525,600)

Smaller increase in men's wages; not precise until the early 30s



Women, age 38: \$12,990 higher (mean: \$440,400; 2.9% higher)
Men, age 38: \$8,935 higher (mean: \$578,200; 1.5% higher)

Taxes and Transfers



INTERNAL
REVENUE
SERVICE

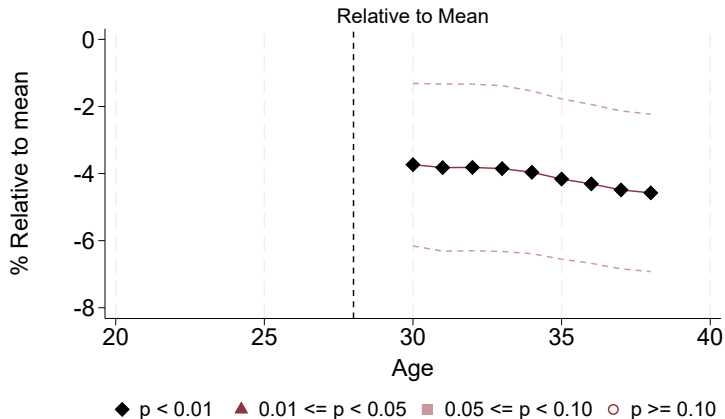
Cumulative EIC receipt declines through age 38



Age 30: -\$3 (mean: \$71)

Age 38: -\$30 (mean: \$664)

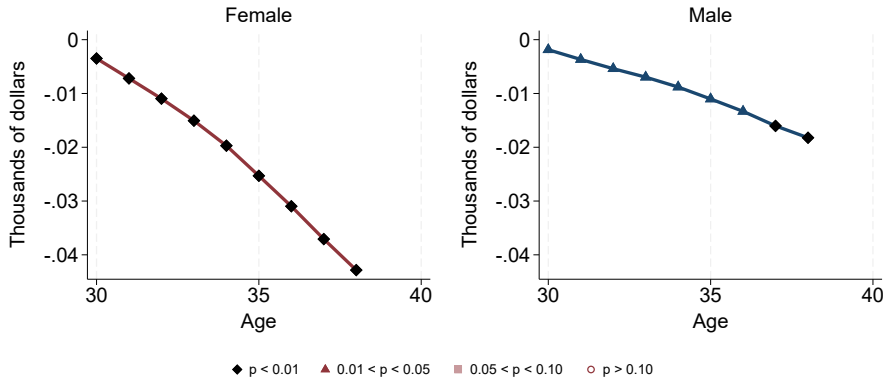
EIC receipt also declines relative to the mean



Age 30: 3.7% lower (mean: \$71)

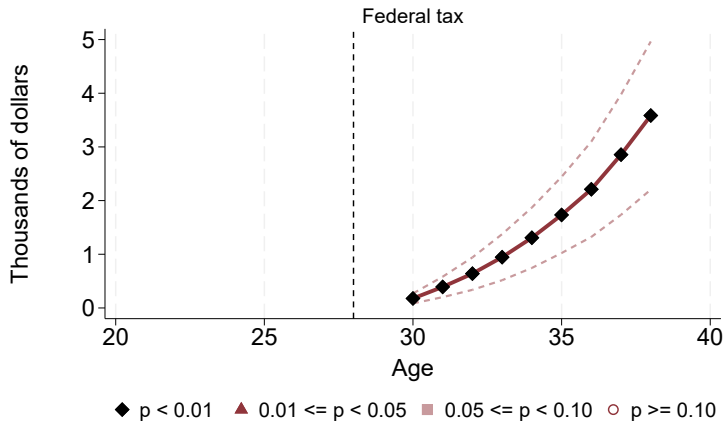
Age 38: 4.6% lower (mean: \$664)

Greater decline in EIC among women



Women, age 38: \$42.84 lower (mean: \$813.80; 5.3% lower)
Men, age 38: \$18.23 lower (mean: \$518.00; 3.5% lower)

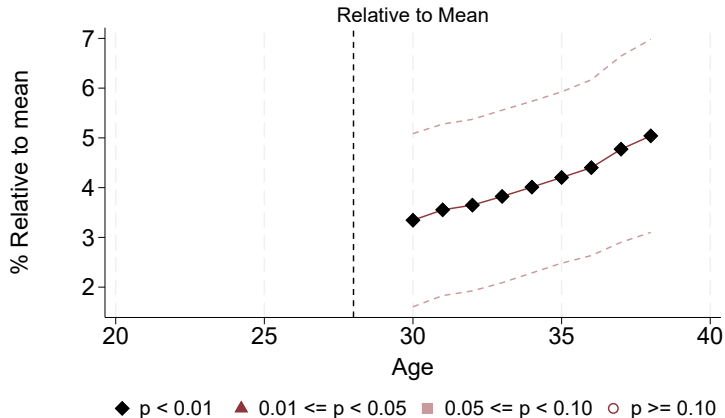
Cumulative federal tax payments rise through age 38



Age 30: \$177 (mean: \$5,291)

Age 38: \$3,585 (mean: \$71,120)

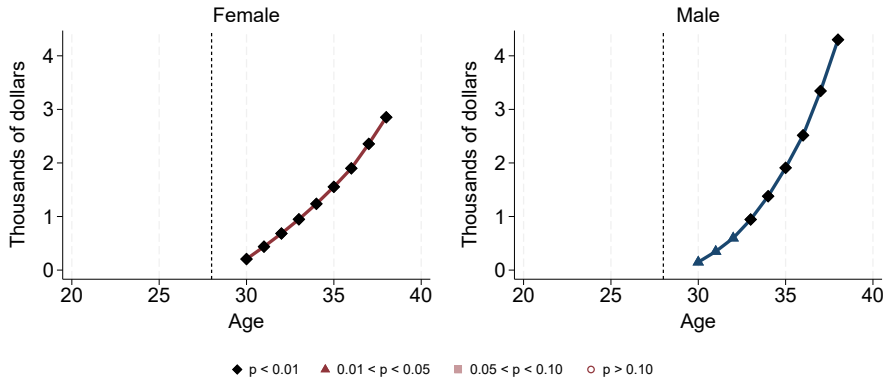
Federal tax payments also rise relative to the mean



Age 30: 3.3% (mean: \$5,291)

Age 38: 5.0% (mean: \$71,120)

Higher absolute tax increase for men; lower relative to the mean



Women, age 38: \$2,853 higher (mean: \$34,570; 8.3% higher)
Men, age 38: \$4,301 higher (mean: \$106,700; 4.0% higher)

Do adult effects track eligibility changes?

Four quartiles of childhood family income relative to FPL

Dose-response patterns

We estimate the first stage and reduced form within
Quartiles of household income relative to the FPL

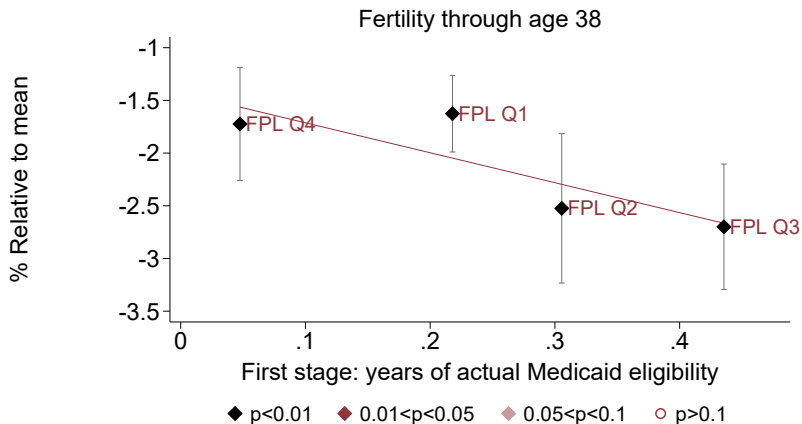
Larger eligibility changes $\implies$ larger adult effects

Q1–Q4 denote quartiles of household income relative to the FPL

Per public Census data, household income quartiles in 1998:

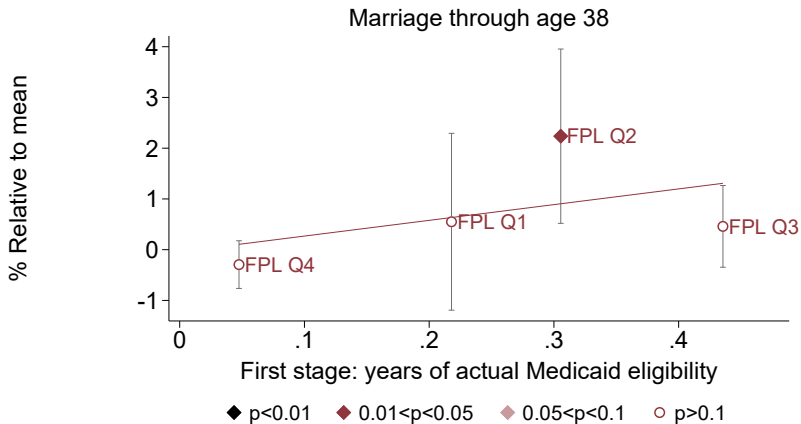
Q1 = \$20k, Q2 = \$39k, and Q3 = \$67.5k

Eligibility changes and fertility



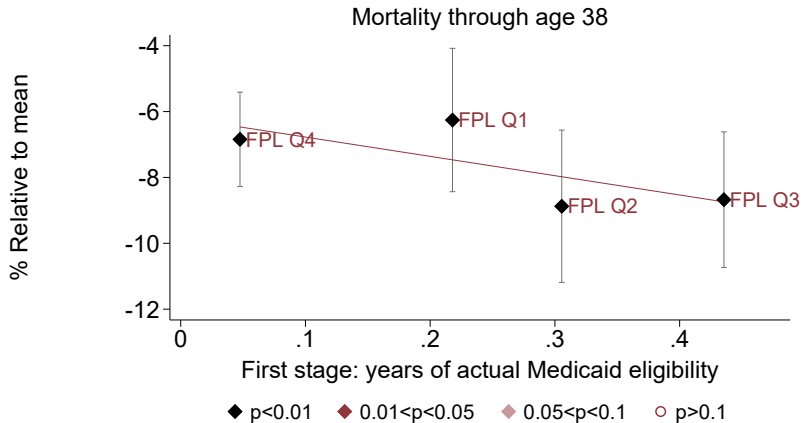
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Eligibility changes and marriage



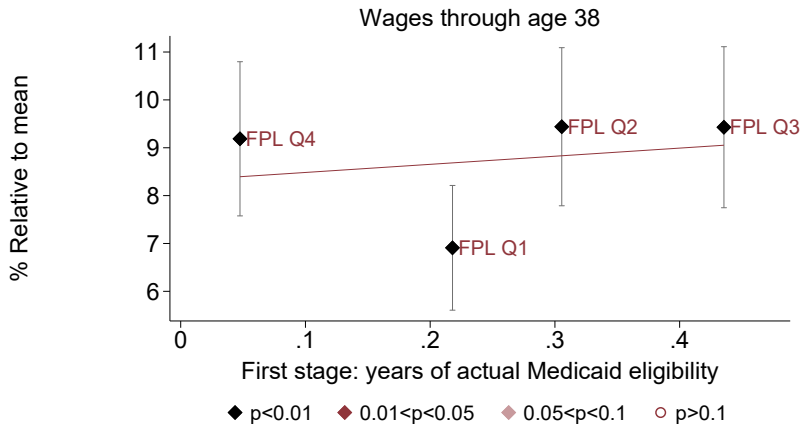
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Eligibility changes and mortality



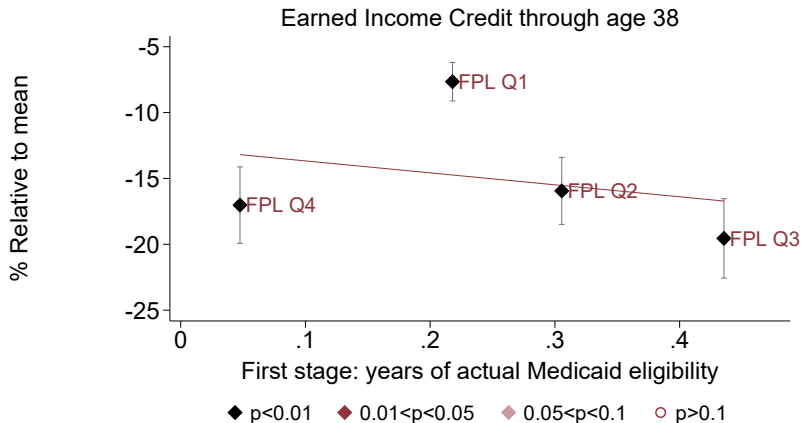
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Eligibility changes and wages



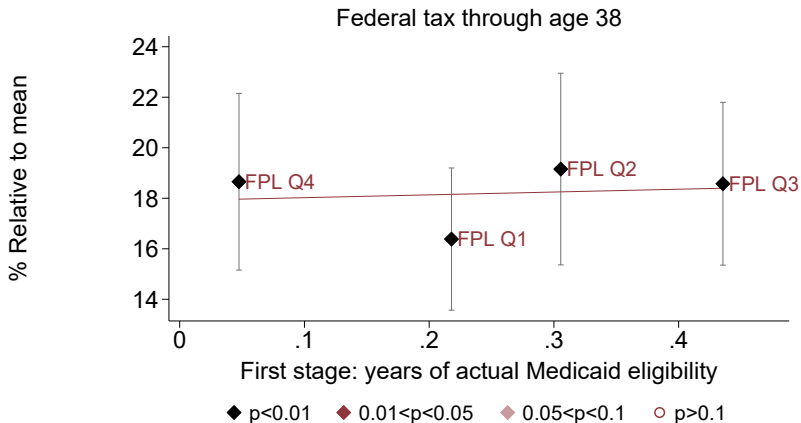
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Eligibility changes and EITC



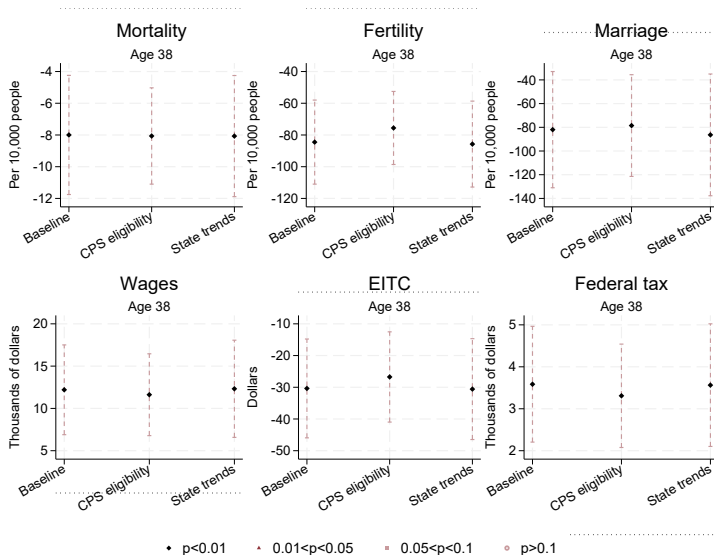
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Eligibility changes and federal taxes



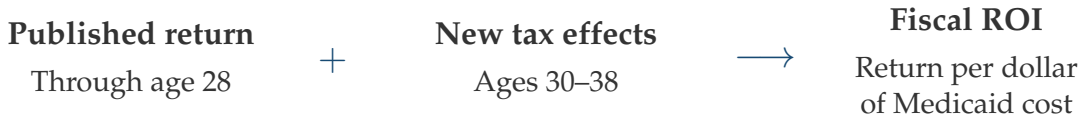
Points represent quartiles of childhood family income relative to FPL
Vertical bars show 95% confidence intervals

Robustness to alternate specification and eligibility construction



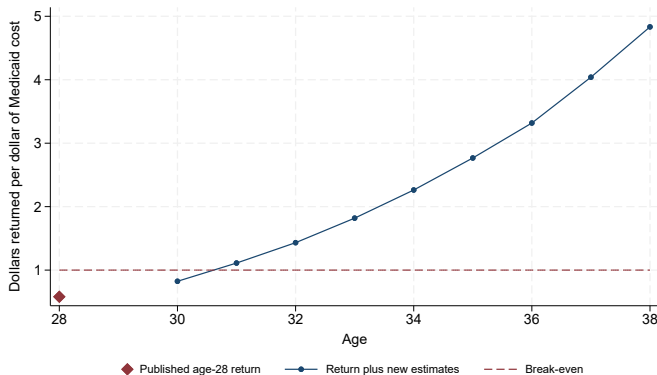
Fiscal return on investment

Does childhood Medicaid pay for itself?



New tax effects and Medicaid costs discounted to birth; age 29 omitted

Fiscal returns continue to grow through age 38



Previous paper: fiscal ROI through age 28 = 0.58

Ages 30–38: discounted taxes \$1,272 > \$299 Medicaid cost

Cost per life saved by age 38

The same Medicaid cost also implies a low cost per life saved

$$\begin{array}{ccccc} \text{Discounted Medicaid} & & \text{Lives saved} & & \text{Cost per life saved} \\ \text{cost} & & & & \\ \$299 & \div & 8 \text{ per} & = & \\ \text{per child} & & 10,000 & & \$374,000 \\ & & \text{by age 38} & & \end{array}$$

Uses the same 3%-discounted Medicaid cost as the fiscal ROI calculation
and the estimated mortality reduction through age 38

Ten more years reveal that age 28 captured only part of the story

Family formation

Early gaps
partly converge

Consistent with changes in
timing

Mortality

Effects continue
to accumulate

\$374,000 per life saved

Economic returns

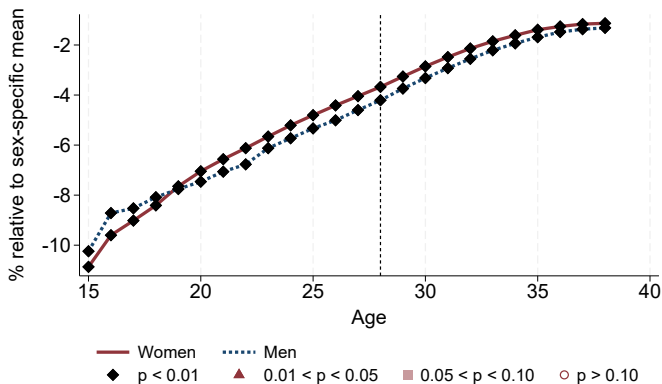
Effects on wages & taxes
grow in relative terms

Fiscal return by age 38

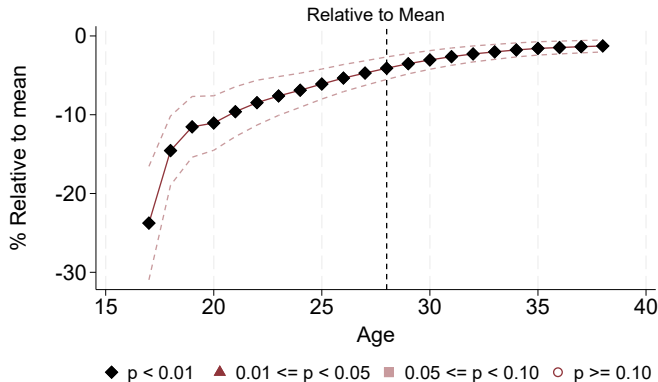
0.58 $\longrightarrow$ > 1

Policy evaluation requires ongoing follow-up to higher ages

Fertility effects relative to sex-specific means



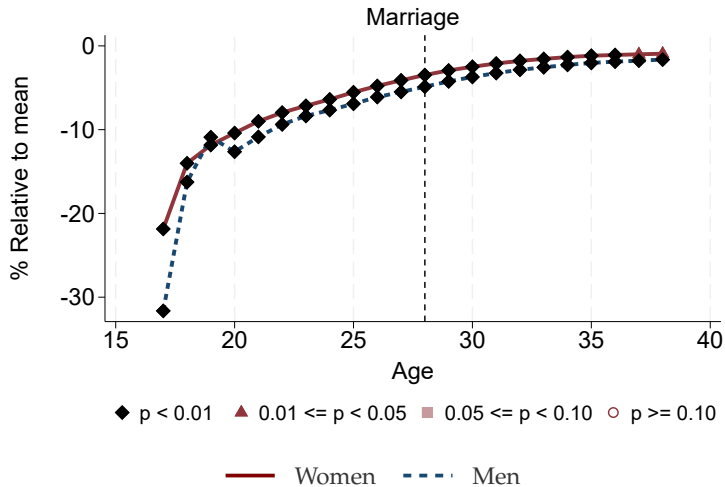
The marriage gap narrows relative to mean marriage



Age 28: 4.1% lower (mean: 4,225)

Age 38: 1.3% lower (mean: 6,451)

Relative marriage effects, by sex



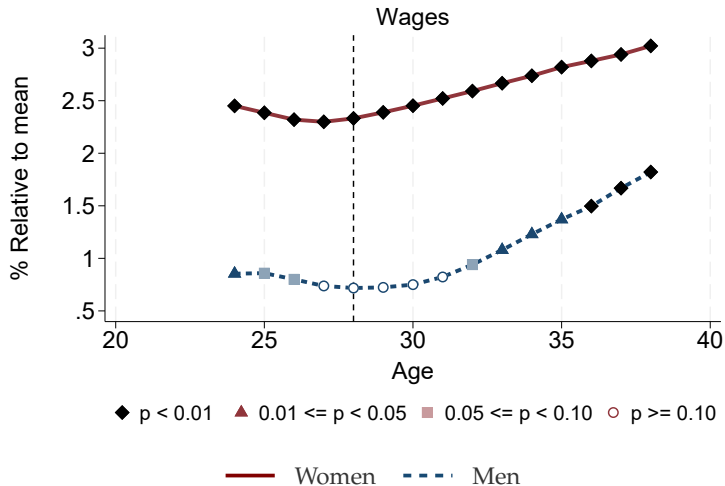
► Levels by sex

Relative mortality effects, by sex



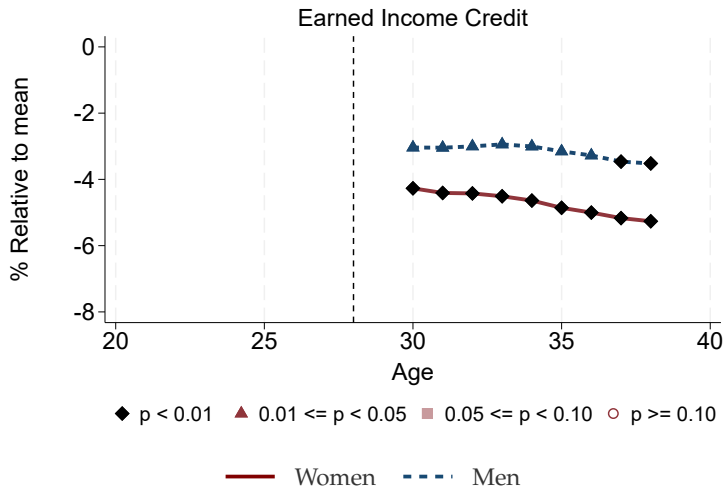
► Levels by sex

Smaller increase in men's wages; not precise until the early 30s



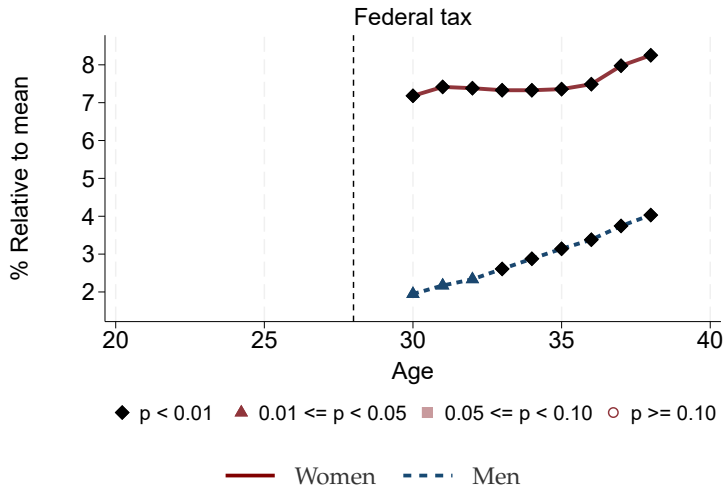
► Levels by sex

EIC effects relative to sex-specific means



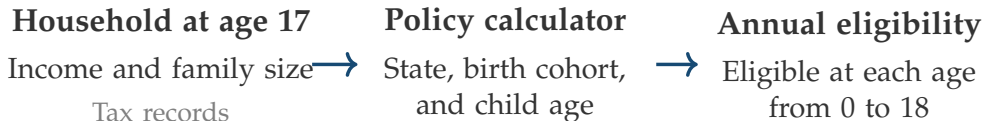
► Levels by sex

Federal tax effects relative to sex-specific means



► Levels by sex

Constructing childhood Medicaid eligibility



Total years of childhood Medicaid eligibility